

What is claimed is:

1. A method for creating a bearing gap for use in a hydrodynamic bearing, said method comprising the steps of:

(a) placing a rotor hub, having a journal aperture disposed through a center thereof onto a shaft coaxially aligned with the shaft and in communication with a lower thrust bearing mounted on the shaft;

(b) introducing a fluid into the journal aperture of the rotor hub, whereby the fluid migrates between the shaft, the rotor and the lower thrust bearing;

(c) affixing an upper thrust bearing, having a central aperture, coaxially to the shaft; and

(d) rotating the rotor hub to cause the fluid to build pressure within the journal aperture and create an air gap between the rotor hub and the upper thrust bearing.

2. The method according to claim 1, wherein the step of providing a rotor shaft having a shaft and a lower thrust bearing disposed about the rotor support further comprises press-fitting the lower thrust bearing onto the shaft through a central coaxially aligned aperture disposed in the lower thrust bearing.

3. The method according to claim 1, comprising measuring a precise amount of fluid to be introduced, whereby a hydrodynamic effect may be obtained upon rotor hub rotation.

4. The method according to claim 1, wherein the step of press-fitting the upper thrust bearing onto the shaft until the thrust bearing is colinear with the rotor hub further comprises aligning the thrust bearing coaxial to the shaft while press-fitting the upper thrust bearing into a contacting coplanar alignment on the rotor hub.

5. An electric motor comprising:

a base;

a shaft having a first end affixed to the base;

a first thrust bearing affixed to the shaft;
a rotor hub rotatably positioned on said shaft and seated on said first thrust bearing;
a second thrust bearing affixed to the shaft;
a fluid located proximate the shaft and first thrust bearing to form, when the rotor hub rotates, a hydrodynamic bearing between the rotor hub and the first thrust bearing and an air bearing between the second thrust bearing and the rotor hub.